INCH-POUND
ATPD 2222
9 January 1998
SUPERSEDING
MIL-DTL-62279B(AT)
10 July 1997

PURCHASE DESCRIPTION

# CHASSIS, TANK: ARMORED VEHICLE, BRIDGE LAUNCHER, M60A1 AND M48A5; PROCESSING FOR STORAGE AND SHIPMENT OF

This purchase description is approved for use by the U.S. Army Tank-automotive and Armaments Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

1.1 Scope. This purchase description covers the processing of the M60A1 and M48A5 tank chassis for shipment and storage.

1.2 Classification. Processing will be of the following levels as specified (see 6.2):

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| Level A | - Processing for domestic or oversea shipment and outside storage in excess of 90 days from date of processing (periodic care and preservation during storage required). |
| Level B | - Limited processing for immediate use shipment and for domestic or oversea shipment (excluding open deck loading) and any storage not to exceed 90 days from date of processing. |

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48397-5000, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

AMSC N/A FSC 2350

## 2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this purchase description. This section does not include documents cited in other sections of this purchase description or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirement documents cited in sections 3 and 4 of this purchase description, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

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|---|---|
| A-A-374 | - Sodium Bicarbonate, Technical. |
| A-A-1800 | - Varnish, Oil: Spar. |
| A-A-1898 | - Cushioning Material, Cellulosic, Packaging. |
| A-A-52506 | - Clamps, Hose. |
| A-A-52518 | - Tire, Pneumatic: Retread and Repair Materials. |
| A-A-52557 | - Fuel Oil, Diesel; For Posts, Camps And Stations. |
| A-A-55057 | - Panels, Wood/Wood Based, Construction and Decorative. |
| O-S-801 | - Sulfuric Acid, Electrolyte for Storage Batteries. |
| P-D-220 | - Detergent, General Purpose. |
| QQ-A-250 | - Aluminum and Aluminum Alloy, Plate and Sheet, General Specification for. |
| TT-E-527 | - Enamel, Alkyd, Lusterless, Low VOC Content. |
| TT-E-529 | - Enamel, Alkyd, Semi-Gloss, Low VOC Content. |
| UU-T-81 | - Tags, Shipping and Stock. |
| VV-L-800 | - Lubricating Oil, General Purpose, Preservative (Water-Displacing, Low Temperature). |
| MMM-A-179 | - Adhesive, Paper Label. |
| MMM-A-1617 | - Adhesive, Rubber Base, General Purpose. |
| PPP-B-601 | - Boxes, Wood, Cleated-Plywood. |
| PPP-B-621 | - Boxes, Wood, Nailed and Locked-Corner. |

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| PPP-C-1752 | - Cushioning Material, Packaging, Polyethylene Foam. |
| PPP-C-1797 | - Cushioning Material, Resilient, Low Density, Unicellular Polypropylene Foam. |

DEPARTMENT OF DEFENSE

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| MIL-B-117 | - Bags Sleeves, and Tubing. |
| MIL-C-450 | - Coating Compound, Bituminous, Solvent Type, Black (for Ammunition). |
| MIL-C-5501 | - Cap and Plug, Protective, Dust and Moisture Seal. |
| MIL-PRF-16173 | - Corrosion Preventative Compound, Solvent, Cutback, Cold-Application. |
| MIL-D-16791 | - Detergents, General Purpose (Liquid Nonionic). |
| MIL-C-20696 | - Cloth, Coated, Polyester or Nylon, Waterproof. |
| MIL-L-21260 | - Lubricating Oil, Internal-Combustion, Engine, Preservative, and Break-in. |
| MIL-T-22085 | - Tape, Adhesive, Preservation and Sealing. |
| MIL-B-22191 | - Barrier Materials, Transparent, Flexible, Heat Sealable. |
| MIL-P-46002 | - Preservative Oil, Contact and Volatile Corrosion Inhibited. |
| MIL-L-46167 | - Lubricating Oil, Internal Combustion Engine, Arctic. |
| MIL-P-52905 | - Paint, Camouflage Removable. |
| MIL-D-81298 | - Dye, Liquid Red, for Detection of Leaks in Aircraft Fuel System. |

STANDARDS

DEPARTMENT OF DEFENSE

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|---|---|
| MIL-STD-209 | - Slinging and Tiedown Provisions for Lifting and Tying Down Military Equipment. |
| MIL-STD-2073-1 | - Military Packaging, Standard Practice for. |
| MS16562 | - Pin, Spring - Tubular, Slotted. |
| MS27040 | - Nut, Plain, Square-Steel, Cadmium Plated. |
| MS27183 | - Washer, Flat-Round Steel, Cadmium Plated, General Purpose. |
| MS35338 | - Washer, Lock-Spring, Helical, Regular (Medium) Series. |
| MS35493 | - Screw, Wood, Round Head, Cross-Recessed, Steel and Brass. |
| MS35751 | - Bolt, Square Neck, Round Head (Carriage) Steel, Cadmium or Zinc Plated, UNC-2A. |

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| MS90726 | - Screw, Cap, Hexagon Head (Finished Hexagon Bolt), Steel, Grade 5, Cadmium Plated, UNF-2A. |

(Unless otherwise indicated, copies of the above specifications and standards are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DRAWINGS

ARMY

| | |
|---|---|
| 10870861 | - Packing, Preformed Rubber. |
| 11655238 | - Finger. |
| 11655239 | - Flange, Closing Plate. |

PURCHASE DESCRIPTIONS

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| ATPD 2241 | - Vehicles, Wheeled: Preparation for Shipment and Storage of. |

(Copies of drawings and purchase descriptions are available from the U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48397-5000.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

ASSOCIATION OF AMERICAN RAILROADS (AAR)

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| Section No.1 | - General Rules Governing Load of Commodities on Open Top Cars. |
| Section No. 6 | - Rules Governing the Loading of Department of Defense Materiel on Open Top Cars. |

(Application for copies may be obtained from the Association of American Railroads, Publication Department, 50 F Street NW, Washington, DC 20001-1564.)

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

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| ANSI/HPVA HP-1 | - Intermin Voluntary Standard for Hardwood and Decorative Plywood. |
| ANSI/NCLS Z540.1 | - General Requirements for Calibration Laboratories and Measuring and Test Equipment (DoD Adopted). |

(Application for copies may be obtained from the American National Standards Institute, 11 West 42nd Street, New York, NY 10036.)

AMERICAN PETROLEUM INSTITUTE (API)

Petroleum Measurement Tables.

(Application for copies may be obtained from the American Petroleum Institute, 1220 L Street, NW, Washington, DC 20005.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

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|---|---|
| ASTM A853 | - Standard Specifications for Steel Wire, Carbon, for General Use (DoD Adopted). |
| ASTM D287 | - API Gravity of Crude Petroleum Products (Hydrometer Method), Standard Test Method for (DoD Adopted). |
| ASTM D5118 | - Standard Practice for Fabrication of Fiberboard Shipping Boxes (DoD Adopted). |
| ASTM D5330 | - Standard Specification for Pressure-Sensitive Tape for Packaging Filament-Reinforced (DoD Adopted). |
| ASTM D5486 | - Standard Specification for Pressure-Sensitive Tape for Packaging, Box Closure and Sealing (DoD Adopted). |
| ASTM E437 | - Standard Specification for Industrial Wire Cloth and Screens (Square Opening Series) (DoD Adopted). |

(Application for copies may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

AMERICAN WELDING SOCIETY (AWS)

AWS A5.10 - Bare Aluminum and Aluminum Alloy Welding Electrodes and Rods, Specification for.

(Application for copies may be obtained from the American Welding Society, 550 NW LeJeune Road, Miami, FL 33126.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.3.

3.2 Materials. Materials used shall be in accordance with the manufacturer's materials specifications for chassis tanks. The materials shall be capable of meeting all the operational and environmental requirements specified herein.

3.2.1 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.3 Processing levels. Level A processing shall be as specified in 3.4. Level B processing shall be as specified in 3.5 and shall constitute exceptions or additions to the processing in Level A (see 4.5.2).

3.4 Level A.

3.4.1 Disassembly. Parts vulnerable to damage and pilferage, and projecting parts whose removal will accomplish the desired reduction in cube, shall be removed from the chassis. Removed parts shall be preserved, packaged, marked, and packed in accordance with the requirements for the level to which the chassis is being processed, and the applicable specifications. The packed parts shall be placed in a protected location in the chassis and secured in a manner to prevent movement and damage during shipment and storage. Removed bolts and nuts, screw pins, and washers shall be placed in one of the mating parts and secured to prevent their loss.

3.4.2 Matchmarking. Parts removed from the chassis shall be matchmarked when necessary to facilitate reassembly. Matchmarking information shall be on cloth shipping tags conforming to type A of specification UU-T-81, or metal tags marked with soluble paint and attached to mating parts. The marked cloth shipping tags shall be waterproofed with varnish conforming to A-A-1800 or adhesive conforming to MMM-A-179.

3.4.3 Record forms. Two copies of DD Form 1397 shall be provided. Information on forms shall include preservation accomplished and depreservation instructions. The Equipment Log Book Binder and one copy of DD Form 1397 shall be placed in a bag conforming to type I, style 2 of MIL-B-117; bag shall be closed by heat sealing and securely attached inside the vehicle. The other copy of DD Form 1397 shall be waterproofed with adhesive conforming to MMM-A-179 and securely attached in a conspicuous location on the exterior of the vehicle (see 4.5.2).

3.4.4 Cleaning and drying.

3.4.4.1 Vehicle interior. Chassis interior surfaces shall be cleaned and dried by any suitable process or processes which are not injurious to the surface.

3.4.4.2 Battery supports and retainers. Battery supports and retainers shall be cleaned with a solution composed of 0.5 pound (lb) (0.23 kilograms (kg)) of sodium bicarbonate, conforming to A-A-374, per gallon (gal) (3.79 liters (L)) of water, and shall be flushed with clean water, then thoroughly dried. Dried surfaces shall then be preserved in accordance with 3.4.5.2.

3.4.4.3 Vehicle exterior. The vehicle exterior shall be cleaned using a solution of detergent conforming to P-D-220, or type I of MIL-D-16791, in water or steam. Cleaning shall remove all foreign matter. Cleaned surfaces shall be rinsed with clean water or steam and thoroughly dried. Care shall be taken to avoid entry of water or steam into the engine compartment, personnel heater exhaust tube, air cleaner ports, or other chassis openings.

3.4.5 Preservation.

3.4.5.1 Relubrication. When the chassis has been operated in excess of 50 miles (80 kilometers (km)) since previous lubrication, or after a detergent or steam cleaning, chassis shall be lubricated using materials in accordance with drawings, specifications, or lubrication order pertinent to the chassis. All exposed oil can points such as levers, locking bars, strikers, hinges, hinge pins, locking pins, pintle pins, locking levers, wing nuts, latches, door locks, control rod clevis and pins, brake lever linkage, engine throttle control linkage, and transmission support guide rails, shall be lubricated with oil conforming to VV-L-800. Excess oil shall be removed after lubrication.

3.4.5.2 Battery supports and retainers. Battery supports and retains shall be preserved with compound conforming to MIL-C-450.

3.4.5.3 Transmission and final drives. The transmission shall contain lubricating oil only conforming to type I, grade 10 of MIL-L-21260 filled to the operating level. Final drives shall contain lubricating oil conforming to type I, grade 10 or 30, as applicable, of MIL-L-21260 filled to operating level. DD Form 1397 shall be annotated with type and grade of lubricant used.

3.4.5.4 Engine crankcase. The engine crankcase shall be filled to operating level with lubricating oil conforming to type I of MIL-L-21260 of the seasonable grade specified in the applicable drawing, specification, or lubrication order. DD Form 1397 shall be annotated with the type and grade of lubricant used. For vehicles being prepared for shipment to, and storage in areas where temperatures are expected to be at or below -20 degrees Fahrenheit (°F) (-29 degrees Celsius (°C), a red warning tag containing the following instructions shall be attached in a conspicuous location in the driver's compartment: "DRAIN ENGINE CRANKCASE AND REFILL WITH MIL-L-46167 OIL BEFORE OPERATING ENGINE" (see 6.2).

3.4.5.5 Engine preservation. The engine shall be preserved in accordance with 3.4.5.5.1 through 3.4.5.5.5.

3.4.5.5.1 Fuel system and combustion chamber. The fuel system and combustion chamber shall be processed in the following steps.

Step 1. Prior to processing, the engine shall be cooled to assure that the cylinder head temperature, measured at the injector nozzle flange surfaces of all cylinders, is not more than 100°F (38°C). Cooling shall be accomplished by induced air currents or by waiting the period of time required to arrive at the specified temperature. When the ambient temperature exceeds 100°F, the engine shall be cooled to the ambient temperature after which the fuel supply from the fuel tanks shall be shut off.

Step 2. A portable container with two compartments shall be positioned to provide gravity feed to the engine. One compartment shall be filled with lubricating oil conforming to grade I of MIL-P-46002 colored with an oil soluble red dye conforming to MIL-D-81298, in a concentration sufficient to impart a marked coloring to the oil. The second compartment shall be filled with diesel fuel conforming to A-A-52557. Uncouple the quick-disconnect on the inlet fuel line to the primary fuel filter. Remove filter cans and elements from both the primary and secondary filters. Drain diesel fuel from filter cans and fill them with lubricating oil conforming to MIL-P-46002, grade 1, and reinstall them without filter elements. Uncouple the engine fuel return line quick-disconnect and fasten a transparent plastic recovery line to the engine line. Provide a recovery container for fuel being discharged from the transparent line.

Step 3. Deliver MIL-P-46002 oil from the portable tank while operating the engine at idle speed, 700 revolutions per minute (rpm), for not more than 60 seconds to consume fuel in the injection system and to pump MIL-P-46002 oil into the engine fuel system. Following the 60 seconds of engine operation, the hand purge pump shall be operated without depressing the solenoid switch until lubricating oil is flowing through the transparent line into the recovery container. (The change should occur after approximately two gal (7.8 L) of fuel flow-out.)

Step 4. Remove the electrical leads from the intake manifold heater igniter plugs and operate the hand purge pump 20 strokes, with the solenoid switch depressed, to pump MIL-P-46002 lubricating oil into the intake manifold heaters. Unclamp the hose from each turbocharger inlet. Secure an air restrictor cover, fabricated in accordance with figure 1 to each turbocharger inlet. While the portable tank furnishes MIL-P-46002 oil, depress the accelerator to full control and crank the engine for three 30 second periods as follows: Cranking shall be for a period of 30 seconds; the starter shall be allowed to cool for not less than three minutes; the engine shall be cranked for an additional 30 seconds, the starter shall be allowed to cool for not less than three minutes; the engine then shall be cranked for a final period of 30 seconds. 1/ 2/

CAUTION: 1/ Each cranking period shall be limited to between 25 and 35 seconds. Special precautions shall be taken to assure that time limits specified shall not be exceeded, as the engine, the starter, or starter solenoid may be damaged.

2/ The engine may fire for five seconds while being cranked with air restrictors installed.

Step 5. Reconnect the electrical leads to the intake manifold heater igniter plugs. Remove the air restrictor covers, but do not reconnect the turbocharger hoses (see 3.4.5.5.3).

3.4.5.5.2 Engine purging. Engine purging shall be accomplished as follows:

Step 1. The portable container shall be adjusted to provide diesel fuel for purging the return fuel line, fuel filters, engine fuel pump and injector pump. Remove the filter cans, drain MIL-P-46002 lubricating oil and wipe them clean with lint-free wiping material. Replace the filter elements in the cans, fill with diesel fuel, and reinstall the filter cans.

Step 2. Hold the engine fuel cut-off switch in the OFF position while operating the hand purge pump, without depressing solenoid switch, until diesel fuel is flowing through the transparent line into a recovery container. (This occurs after approximately two gal flow-out of MIL-P-46002 lubricating oil.)

Step 3. Disconnect recovery line and reconnect the engine fuel return line to the fuel tanks. Turn on the vehicle supply system and reinstall any parts disassembled during engine processing.

3.4.5.5.3 Preservation of turbochargers. Two ounces (oz) (59 milliliters (mL)) of preservative oil conforming to MIL-P-46002, grade 1, shall be atomize-sprayed in each turbocharger inlet. The removed clamps shall be reinstalled on each turbocharger air inlet horn. Turbocharger inlets and air cleaner hoses shall be sealed with type II of MIL-T-22085 tape, or with plastic plugs conforming to MIL-C-5501.

3.4.5.5.4 Preservation through exhaust system. After preservation in accordance with 3.4.5.5.1 through 3.4.5.5.3, two oz (59 mL) of preservative oil conforming to grade 1 of MIL-P-46002 shall be atomized into each exhaust opening. Openings shall then be sealed with tape conforming to type II of MIL-T-22085. The engine crankcase breathers shall then be sealed with plastic plugs conforming to MIL-C-5501 or with tape conforming to type II of MIL-T-22085.

3.4.5.5.5 Preservation through dipstick shroud opening and oil filter tube. After preservation in accordance with 3.4.5.5.1 through 3.4.5.5.4, six oz (177 mL) of preservative oil MIL-P-46002, grade 1, shall be atomize-sprayed into the crankcase through the oil filler cap opening. An extension of sufficient length to permit the spray nozzle to be within the crankcase shall be used. The spray nozzle shall not be submerged in the crankcase oil. In case of inability to use the oil tube filler system to atomize spray due to change in location of the filler tube, the dipstick shroud opening shall be used. After spraying has been accomplished, the dipstick shall be reinstalled, the oil filler cap closed and all openings to the engine interior, including dipstick shroud opening and oil filler cap, shall be sealed with tape, type II of MIL-T-22085.

3.4.5.5.6 Engine preservation tag. After processing in accordance with 3.4.5.5.3 through 3.4.5.5.5, a red tag shall be imprinted with the following warning: “ENGINE PRESERVED WITH VOLATILE CORROSION INHIBITER (VCI) - DO NOT CRANK. BEFORE CRANKING ENGINE, REMOVE TAPE OR PLUGS FROM TURBOCHARGER INLETS, AIR CLEANER HOSES, EXHAUST TUBE OPENINGS, CRANKCASE BREATHERS, OIL FILLER CAP, DIPSTICK SHROUD OPENING, AND FROM OTHER OPENINGS TO THE ENGINE INTERIOR. RECONNECT AIR CLEANER HOSES TO TURBOCHARGER INLETS”. Place the tag in a conspicuous location in the driver’s compartment. DD Form 1397 shall be annotated to show that the engine has been preserved with VCI and preservative oil (see 6.2).

3.4.5.6 Air cleaners. After completion of acceptance tests and prior to chassis shipment, the air cleaner supply shall be adjusted to assure that air will be taken from the engine compartment and not the crew compartment. Exterior air cleaner discharge elbows shall be sealed with MIL-T-22085, type II.

3.4.5.7 Personnel heater and fuel pump. After processing the engine as specified in 3.4.5.5, uncouple the quick-disconnect from the personnel heater fuel pump line and drain the fuel line. Seal the ends of the disconnected fuel line with plastic caps/plugs conforming to MIL-C-5501, or with tape conforming to type II of MIL-T-22085. The external heater exhaust opening shall be sealed with tape conforming to type II of MIL-T-22085. Red warning tags with the following information shall be secured to the heater unit, to the heater fuel pump and to the heater operating switch (on driver's control panel): "HEATER FUEL LINE DISCONNECTED AND SEALED - REMOVE SEALS FROM FUEL LINE AND EXHAUST TUBE, OPERATE HEATER FUEL PUMP TO DRAIN MINIMUM OF ONE QUART (0.95 LITERS), FUEL - RECONNECT FUEL LINE TO HEATER PRIOR TO STARTING" (see 6.2).

3.4.5.8 Fuel tanks.

3.4.5.8.1 Metallic, ferrous fuel tanks. Fuel tanks in vehicles shall be completely drained of all fuels by removing the fuel tank drain plug or, if not equipped with a drain plug, by siphoning or any other means available. After draining, the fuel tank drain plug, if so equipped, shall be reinstalled and the fuel tank filled with lubricating oil conforming to type I, grade PE10-1 of MIL-L-21260, and again drained, siphoned or otherwise emptied. If drained, allow to drain until the oil flow drips. The metallic plug, if so equipped, and tank filler cap, if metallic, shall be coated with the same oil and reinstalled. The examination of the first processed tank shall be made to determine if all interior surfaces are coated with preservative. If the top of the tank is not coated with preservative because of an airlock, the sending unit shall be loosened or some other means devised to permit the preservative to reach all interior surfaces. Emptied preservative oil may be reused for processing other fuel tanks, provided not more than 10 percent (%) of the fluid is fuel when tested as specified in 4.5.2.2.

3.4.5.8.2 Non-metallic and non-ferrous fuel tanks. Fuel tanks in vehicles shall be completely drained of all fuel by removing the fuel tank drain plug or, if not equipped with a drain plug, by siphoning or any other means available. No preservation of fuel tanks is necessary. The metallic drain plug, if so equipped, and tank filler cap, if metallic, shall be coated with a lubricating oil conforming to type I, grade PE10-1 of MIL-L-21260 and reinstalled.

3.4.5.9 Ventilation. All access plates and gaskets on the underside of the chassis shall be removed, and the driver's and engine compartment drain valves secured in the open position. Unpainted, metal surfaces exposed by disassembly shall be coated with preservative conforming to grade 1 of MIL-PRF-16173. Access plates shall be packaged in accordance with 3.4.6.4. Threaded portions exposed by removal of these items shall be coated with preservative conforming to grade 4 of MIL-PRF-16173. Screens conforming to figures 2 through 5 shall be constructed and installed in access cover openings as specified. The following shall be stenciled on the exterior of the vehicle: "REMOVE SCREENS, INSTALL ACCESS PLATES, COVERS, AND GASKETS, AND CLOSE DRAINS BEFORE OPERATING VEHICLE". Stenciling shall

be applied using white or yellow paint conforming to MIL-P-52905. Characters shall be at least 0.75 inches (in.) 19.1 millimeters (mm)) in height (see 6.2).

3.4.5.10 Fire extinguishers. Fire extinguisher cylinders shall be filled to at least 90 percent of rated full charge. All seals shall be intact. DA Form 253 shall be completed and securely attached to each cylinder (see 6.2 and 6.3).

3.4.5.11 Crew compartment escape hatch. Rubber seals around the crew compartment escape hatch shall be coated with powdered talc conforming to type IV, class C of A-A-52518. Hatch shall be secured from the inside.

3.4.5.12 Miscellaneous preservation. Except as otherwise specified herein, all exposed, unpainted, metal surfaces on the exterior of the chassis, except the track, shall be coated with compound conforming to grade 1 of MIL-PRF-16173. All exposed, unpainted, unplated ferrous metal surfaces on the interior of the chassis shall be coated with compound conforming to grade 4 of MIL-PRF-16173.

3.4.6 Packaging.

3.4.6.1 Dry charged batteries and cables. Dry charged batteries shall be installed in the vehicle battery carrier. Filler cap openings shall be sealed by placing a two inch wide by 3-mil thick strip of film conforming to type II of MIL-B-22191 over all filler cap openings with caps removed. The film shall be of sufficient length to allow the film to be depressed into the filler cap opening to the same depth as the filler cap. Filler caps shall be screwed into the filler openings to form a complete seal without damaging the plastic film. Battery cables shall be secured to the battery carrier with applicable, 0.75 in. wide tape conforming to ASTM D5330.

3.4.6.2 Electrolyte. Electrolyte shall be packaged, packed, and marked as specified for type IV, class 1 or 2 unit (as applicable) in accordance with O-S-801, except that the exterior containers shall conform to PPP-B-601 or PPP-B-621. The packed electrolyte shall be stowed with the basic issue items (BII) and secured independently to permit separate removal.

3.4.6.3 Fire extinguishers. Exterior fire extinguisher handles and protective shields shall be completely sealed with tape conforming to MIL-T-22085, type II. A red warning tag containing the following information shall be located in a conspicuous location within the driver's compartment (see 6.2) "EXTERIOR FIRE EXTINGUISHER HANDLES SEALED WITH TAPE - REMOVE TAPE BEFORE STARTING ENGINE OR PLACING VEHICLE IN SERVICE".

3.4.6.4 Access plates and gaskets. Preserved access plates and gaskets (see 3.4.5.9) shall be packaged in a box conforming to type CF, class WR of ASTM D5118. The box shall be closed with tape conforming to type III, color as ordered, of ASTM D5486, identified as to contents, and securely stowed within the vehicle.

3.4.6.5 Tow hooks. Tow hooks and related hardware shall be removed for shipment and packaged in a type CF, class WR, box conforming to ASTM D5118. The box shall be closed with tape conforming to type III, color as ordered, of ASTM D5486, identified as to contents, and securely stowed within the vehicle.

3.4.6.6 Basic issue items (BII). The BII shall be packaged, packed, and stowed in accordance with ATPD 2241 or other documents designated by the responsible agency. Unless otherwise specified, for shipping purposes, on-vehicle equipment shall be placed on the floor of railroad cars and blocked, braced and anchored to prevent movement in transit. Corner protectors shall be used under the strapping.

3.4.7 Chassis covers.

3.4.7.1 Closure kit. Unless otherwise specified (see 6.2), the chassis shall be provided with a protective closure. The M60A1 and M48A5 chassis closure covers shall be fabricated from nylon-coated cloth conforming to type II, class 3 of MIL-C-20696, except that the overall weight shall be 14 oz. per square yard ($yd^2$ ). The cover shall be of a size that can be positioned to conform to the chassis. The cover shall extend over the edge of the vehicles sufficiently to allow maximum closure and securement. All sharp corners of the vehicle shall be cushioned with a 0.75 in. minimum thickness of cushioning material conforming to A-A-1898, secured in place with tape conforming to type I, class 1 of ASTM D5486.

3.4.7.1.1 Closure marking. The information “TO PREPARE VEHICLE FOR LOADING: OPEN APPLICABLE AREAS SUFFICIENTLY SO AS TO EXPOSE VEHICLE LIFTING EYES. AFTER LOADING, RESTORE AND SECURE COVER TO ORIGINAL CONDITON” shall be stenciled on the exterior front and rear of the closure in characters as minimum of 0.75 in. high using white enamel conforming to TT-E-529.

CLOSURE PACKAGING AND SHIPPING INSTRUCTIONS:

1. DISASSEMBLE FRAMEWORK AND SECURELY BUNDLE LIKE ITEMS.
2. PACKAGE SMALL HARDWARE IN CLOTH BAGS.
3. GROUP LARGEST, HEAVIEST ITEMS ON BOTTOM OF WOOD SHIPPING BOX.
4. PLACE SMALLER PACKAGED ITEMS IN VOIDS BETWEEN LARGER ITEMS.
5. FOLD CLOSURE COVER - PLACE ON TOP OF OTHER PACKED ITEMS.
6. IMMOBILIZE PACKED ITEMS AND SECURE BOX COVER.
7. SHIP TO (address to be furnished by contracting officer).

All stenciled characters shall be at least 0.75 in. high using white enamel conforming to TT-E-529 (see 6.2).

3.4.7.1.2 Closure disposition marking. The following information shall be stenciled on the outside, front and rear of the cover: "REUSABLE CLOSURE (COVER AND FRAMEWORK) - DO NOT DESTORY - WHEN REMOVED AND NO LONGER REQUIRED FOR VEHICLE PROTECTION, DISASSEMBLE, PACKAGE, AND SHIP PER INSTRUCTIONS ON INSIDE OF COVER". The following information shall be stenciled on the inside, front and rear, of the cover.

CLOSURE PACKAGING AND SHIPPING INSTRUCTIONS:

1. DISASSEMBLE FRAMEWORK AND SECURELY BUNDLE LIKE ITEMS.
2. PACKAGE SMALL HARDWARE IN CLOTH BAGS.
3. GROUP LARGEST, HEAVIEST ITEMS ON BOTTOM OF WOOD SHIPPING BOX.
4. PLACE SMALLER PACKAGED ITEMS IN VOIDS BETWEEN LARGER ITEMS.
5. FOLD CLOSURE COVER - PLACE ON TOP OF OTHER PACKED ITEMS.
6. IMMOBILIZE PACKED ITEMS AND SECURE BOX COVER.
7. SHIP TO (address to be furnished by contracting officer).

All stenciled characters shall be at least 0.75 in. high using white enamel conforming to TT-E-529.

3.4.7.2 Manifold opening. The manifold opening shall be provided with covers constructed from plywood in accordance with figure 7. Plywood covers shall be placed over the manifold opening and secured with a bolt in accordance with figure 7. The joint between bolt head and cover, and hull and the cover, shall be sealed with tape conforming to type II of MIL-T-22805.

3.4.7.3 Crew compartment. Crew compartment opening shall be provided with a cover (see figure 7), constructed from plywood, a minimum of 0.5 in. (13 mm) thick, conforming to ANSI/HPVA HP-1, type I, exterior full waterproof bond. Prior to installation of the cover, one of the access plates between the crew compartment and engine compartment shall be removed and secured within the crew compartment in a manner to prevent movement in transit. Eight wood spacers shall be placed over the bolt holes between the cover and "X" members of the frame. A flat washer shall be used under the head of each bolt. The joint between the plywood cover and the hull shall be sealed with tape conforming to type II of MIL-T-22085. A 4 in. (101.6 mm) square screen constructed of wire cloth, 0.047 (1.2 mm) diameter, 4 x 4 mesh, conforming to 3.4.7.3.1 and shall be installed over the 3 in. (76.2 mm) diameter ventilation hole. The screen shall be secured to the cover with steel staples.

3.4.7.3.1 Wire cloth screen. The wire cloth screen shall be fabricated from one of the following available commercial alternatives:

a. Carbon steel - 60 by 60 mesh
b. Brass - 120 by 120 mesh
c. Copper - 100 by 100 mesh
d. Monel - 200 by 200 mesh
e. Nickel - 250 by 250 mesh
f. Stainless steel - 325 by 325 mesh.

3.5 Level B. Chassis shall be processed in the same manner as specified for Level A, with the following exceptions.

3.5.1 Transmission and final drives. Transmission and final drives shall contain normal seasonal operational lubricant as specified in lubrication order, filled to operating level. DD Form 1397 shall be annotated to indicate grade of lubricant used (see 3.4.5.3).

3.5.2 Engine crankcase. Engine crankcase shall contain normal seasonal operational lubricant as specified on lubrication order, filled to operational level. DD Form 1397 shall be annotated to indicate grade of lubricant used (see 3.4.5.4).

3.5.3 Engine preservation. The engine shall not require preservation for Level B shipment and storage (see 3.4.5.5).

3.5.4 Air cleaners. The air cleaners shall neither be disassembled nor sealed for Level B shipment storage (see 3.4.5.6).

3.5.5 Fuel tanks. Unless otherwise specified (see 6.2), chassis shall be shipped without draining residual fuel from the fuel tanks (see 3.4.5.8).

3.5.6 Personnel heater and fuel pump. Unless otherwise specified (see 6.2), personnel heaters and fuel pumps shall be in a ready-to-use condition (see 3.4.5.7).

3.5.7 Closure kit. Vehicle closures shall not be provided on chassis processed for Level B shipment and storage (see 3.4.7.1).

3.5.8 Ventilation. All access plates and gaskets on the underside of the chassis shall be removed and exposed surfaces shall be preserved (see 3.4.5.9). Removed items shall be processed in accordance with 3.4.5.9. Both drain valves shall be secured in the open position. The opening in the crew compartment cover shall not be screened (see figure 6) but 3 in. hole and the edges between the wood cover and the hull shall be sealed with tape conforming to type II of

MIL-T-22085. Surfaces to which tape will be applied shall be thoroughly cleaned and dried to assure effective tape adhesion. Access plates between the engine and crew compartments shall not be removed.

3.5.9 Cargo straps and fender boxes. Fabric retaining straps in the fender boxes shall be removed, identified with their Army part numbers, and be placed in a plastic bag conforming to type II, class B, style 2 of MIL-B-117. The bag shall be closed and stowed inside the chassis. Fender box covers shall be closed, and handles shall be locked and secured with a suitable gage wire conforming to ASTM A853.

3.6 Loading.

3.6.1 Loading on flat cars. Loading of chassis on open top railcars shall be in accordance with the applicable requirements of Section 1, Association of American Railroads (AAR) Manual, "Loading of Commodities on Open Top Cars", and Figure 80 of Section 6 of the AAR rules, "Loading of Department of Defense Material on Open Top Cars". The number of units to be loaded on each railcar, the type of railcar, and the applicable transportation data shall be as authorized by the responsible Government transportation office. (See 3.4.7.1 for preparing closure covers for loading activities.)

3.6.1.1 Lifting and tiedown devices. When specified (see 6.2), the vehicle shall be provided with slinging and tiedown provisions in accordance with MIL-STD-209 and standard commercial practices for internal aerial delivery in fixed wing aircraft, or the location of hard points for attachment of lifting and tiedown devices shall be specified (see 3.4.1).

3.6.2 Reprocessing engine after loading - Level A. If the engine is operated in connection with moving the chassis to loading area, or during chassis loading or unloading, the engine shall be reprocessed as specified in 3.4.5.5. The closure cover shall be rolled clear of the engine intake and exhaust to provide air circulation and to prevent damage to the cover. After reprocessing, the closure shall be replaced in its original position.

3.6.2.1 Reprocessing engine after loading - Level B. If the engine is operated in connection with movement of the chassis during loading or unloading, additional processing of the engine will not be required.

3.7 Marking. In addition to any special marking required in the contract or order, the chassis shall be marked in accordance with 3.4.1 (see 6.5).

3.7.1 Lifting points. The legend "LIFT HERE" with an arrow pointing to the lifting eye shall be stenciled adjacent to each lifting eye using black enamel conforming to TT-E-527, No. 37038. Stenciling shall be at least 0.75 in. high.

3.7.2 Shipping label adhesion. To ensure effective adhesion when applied during cold weather, Military Shipment Labels, DD Form 1387, shall be cemented to vehicles with adhesive conforming to type I of MMM-A-1617. After mounting, labels shall be covered with a protective coating (see 6.5).

3.8 Drive on/drive off capability. When chassis is to be operated for loading or unloading (see 6.2), the following provisions shall apply.

3.8.1 Fuel tanks. Additional fuel shall be added (see 6.2), as required, to accomplish movement of chassis.

3.8.2 Batteries and electrolyte. Batteries shall be filled with electrolyte and be fully charged, and cables shall be properly connected (see 3.4.6.1 and 3.4.6.2). After chassis self-movement for loading or for placement in storage, the main power lead to the master control box in the driver's compartment shall be disconnected and secured to prevent movement. A red tag bearing the following message: "VEHICLE PRESERVED FOR DRIVE-AWAY CONDITON. BEFORE CRANKING, CONNECT HARNESS (CIRCUIT 81) TO MASTER RELAY BOX ON HULL FLOOR UNDER TURRET BASKET. ENGINE AND FUEL TANKS NOT PRESERVED" shall be placed in a conspicuous location in the crew compartment.

4. VERIFICATION

4.1 Inspection equipment. Unless otherwise specified in the contract (see 6.2), the contractor is responsible for the provision and maintenance of all inspection equipment necessary to assure that supplies and services conform to contract requirements. Inspection equipment must be capable of repetitive measurements to an accuracy of 10% of the measurement tolerance. Calibration of inspection equipment shall be in accordance with ANSI/NCLS Z540-1.

4.1.1 Inspection records. Contractor shall maintain records of all inspections preformed and such records shall be readily available for review by the Government representatives.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.3).
b. Conformance inspections (see 4.4).

4.3 First article inspection. Unless otherwise specified (see 6.2), the Government shall select one of the first ten processed tank chassis produced under the production contract for first article inspection. First article samples shall be inspected for conformance to the requirements listed in table I. Approval of the first article sample by the Government shall not relieve the contractor of his obligation to supply processed tank chassis that are fully representative of those

inspected as a first article sample. Any changes or deviation of the production units from the first article sample shall be subject to the approval of the contracting officer.

TABLE I. Classification of requirements.
(See indicated paragraphs for Level A and B requirements.)

| Component or processing activity | Cleaning | Preservation | | Packaging/stowage |
|---|---|---|---|---|
| | Levels A & B | Level A | Level B | Levels A & B |
| Disassembly | | 3.4.1 | | 3.4.1 |
| Matchmarking | | | | 3.4.2 |
| Record forms | | | | 3.4.3 |
| Cleaning and drying | 3.4.4 | | | |
| Interior of vehicle | 3.4.1.1 | | | |
| Battery supports and retainers | 3.4.4.2 | | | |
| Exterior of vehicle | 3.4.4.3 | | | |
| Preservation | | 3.4.5 | 3.4.5 | |
| Relubrication | | 3.4.5.1 | 3.4.5.1 | |
| Battery supports and retainers | | 3.4.5.2 | 3.4.5.2 | |
| Transmission and final drives | | 3.4.5.3 | 3.5.1 | |
| Engine crankcase | | 3.4.5.4 | 3.5.2 | |
| Engine preservation | | 3.4.5.5 | 3.5.3 | |
| Preservation through fuel system | | 3.4.5.5.1 | 3.5.3 | |
| and combustion chamber | | 3.4.5.5.2 | 3.5.3 | |
| Engine purging | | 3.4.5.5.3 | 3.5.3 | |
| Preservation of turbochargers | | 3.4.5.5.4 | 3.5.3 | |
| Preservation through exhaust system | | 3.4.5.5.5 | 3.5.3 | |
| Preservation through dipstick shroud open and oil filler tube | | 3.4.5.5.6 | 3.5.3 | |
| Engine preservation warning tag | | 3.4.5.6 | 3.5.4 | |
| Air cleaners | | | | |

TABLE I. Classification of requirements - Continued.
(See indicated paragraphs for Level A and B requirements.)

| Component or processing activity | Cleaning | Preservation | | Packaging/stowage |
|---|---|---|---|---|
| | Levels A & B | Level A | Level B | Levels A & B |
| Personnel heater and fuel | | 3.4.5.7 | 3.5.6 | |
| pump | | 3.4.5.8 | 3.5.5 | |
| Fuel tanks | | 3.4.5.9 | 3.5.8 | |
| Ventilation | 3.4.4 | 3.4.5.10 | | |
| Fire extinguishers | 3.4.1.1 | 3.4.5.11 | | |
| Escape hatch | 3.4.4.2 | 3.4.5.12 | | |
| Miscellaneous | 3.4.4.3 | | | |
| Packaging | | | | 3.4.6.1 |
| Dry charged and batteries and | | | | |
| cables | | | | 3.4.6.2 |
| Electrolyte | | | | 3.4.6.3 |
| Fire extinguishers | | | | 3.4.6.4 |
| Access plates, gaskets and | | | | |
| drain | | | | 3.4.6.5 |
| plugs | | | | 3.4.6.6 |
| Tow hooks | | 3.4.7.1 | 3.5.7 | |
| Basic issue items (BII) | | | | 3.4.7.2 |
| Closure kit | | | | |
| Manifold opening | | | | |
| Crew compartment cover | | | | 3.4.7.3 |
| Cargo straps and fender boxes | | | | 3.5.9 |
| (Level B only) | | | | |
| Loading on flat cars | | | | 3.6.1 |
| Lifting and tiedown devices | | | | 3.6.1.1 |
| Reprocessing engine after | | | | |
| loading: | | | | 3.6.2 |
| Level A | | | | 3.6.2.1 |
| Level B | | | | 3.7 |
| Marking | | | | 3.7.1 |
| Lifting points | | | | 3.7.2 |
| Shipping label adhesion | | | | 3.8 |
| Drive on/drive off | | | | |

4.3.1 First article inspection failure. Test item deficiencies during, or as a result of, the first article tests, shall be cause for rejection of the items until evidence has been provided by the contractor that corrective action has been taken to eliminate the deficiency. Any deficiency found

during, or as a result of the first article test, shall be prime facie evidence that all items already produced prior to completion of the first article test are similarly deficient unless evidence satisfactory to the contracting officer is furnished by the contractor that they are not similarly deficient.

4.4 Conformance inspection.

4.4.1 Conformance inspection. One vehicle each day shall be inspected in accordance with 4.5.2.1. Each vehicle shall be inspected in accordance with 4.5.2.2 through 4.5.2.5 and for conformance to the requirements of table I.

4.4.2 Failure. Failure of any processed tank chassis to pass any of the specified tests shall be cause for the Government to refuse acceptance of the production quantity represented, until action has been taken by the contractor to correct defects and prevent recurrence has been approved by the Government.

4.5 Methods of inspection.

4.5.1 Materials. Conformance to 3.2 and 3.3, shall be determined by inspection of contractor records providing proof or certification that materials conform to requirements. Applicable records shall include drawings, specifications, design data, receiving inspection records, processing and quality control standards, vendor catalogs and certifications, industry standards, test reports, and rating data.

4.5.2 Processing. To ensure conformance to 3.3 through 3.4.3 and 3.5, in process inspection shall include al items specified in table I and 4.5.2.1 through 4.5.2.3.

4.5.2.1 Cleaning. To determine conformance to 3.4.4.2, interior of vehicles shall be examined for cleanliness. One vehicle each day shall be tested for cleanliness in accordance with the applicable provisions of MIL-STD-2073-1. To determine conformance to 3.4.4.3, exterior of vehicle shall be examined for cleanliness. Surfaces to which tape is to be applied shall be examined for cleanliness before application (see 3.5.9).

4.5.2.2 Fuel tanks.

4.5.2.2.1 Fuel and oil mixture (oil conforming to MIL-L-21260). To determine conformance to 3.4.5.8, the drained preservative oil from the fuel tank of every fifth vehicle shall be tested as follows.

4.5.2.2.1.1 American Petroleum Institute (API) gravity. The API gravity of the oil conforming to MIL-L-21260, as received and unused, shall be determined by the contractor. This information may also be obtained in written form from the supplier of the oil.

4.5.2.2.1.1.1 Gravity value. An API hydrometer with thermometer plus corrective values for the temperature differential above or below the established base temperature shall be used to determine the API degrees that determine a 10% dilution. The resultant gravity value determined by this test shall then be used as the control for all oils used which have the same basic, unused oil, gravity. Oils conforming to MIL-L-21260 or different API gravity shall not be mixed.

4.5.2.2.2 Mixture. To nine parts of the new, unused oil, equal parts of fuel shall be added. Fuel shall be to the same specifications as is used in vehicles concerned. Materials shall be thoroughly mixed before testing.

4.5.2.2.3 Equipment and procedure. The equipment and procedure for conducting the test shall be strictly in accordance with ASTM D287. All results shall be adjusted to 60°F (15.6°C) as specified in the Petroleum Measurement Tables of ASTM D287.

4.5.2.3 Engine. To determine conformance to 3.4.5.5, interior of the engine from the first processed chassis shall be examined for surface coverage. One cylinder head shall be removed to permit visual examination of surfaces within the combustion chamber. Surfaces within the combustion chamber, including piston crown, cylinder wall and chamber head, shall have a “wet” coating or preservative oil such as is obtained when an item is dipped or flushed with the oil. The processing method used to prepare the approved preserved engine shall be applied to subsequent production chassis (see 3.3).

## 5. PACKAGING

(This section is not applicable to this purchase description.)

## 6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 Intended use. This purchase description covers processing of M60A1 and M48A5 vehicle chassis for storage outside of buildings, for immediate shipment and domestic or overseas shipment including carloading (see 1.1).

6.2 Acquisition requirements. Acquisition documents must specify the following:

a. Title, number, and date of this purchase description.
b. Applicable level type of processing required (see 1.2).
c. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1 and 2.3).
d. If first article inspection sample is required (see 3.1).
e. If special marking is required (see 3.4.5.4, 3.4.5.5.6, 3.4.5.7, 3.4.5.9, 3.4.5.10, 3.4.6.3, 3.4.7.1 and 3.4.7.1.1).
f. If chassis shall be shipped other than as specified (see 3.5.5).
g. If personnel heater and fuel pump are other than as specified (see 3.5.6).
h. Whether slinging or tiedown devices are to be provided (see 3.6.1.1).
i. If chassis drive on/drive off capability is required (see 3.8).
j. If additional fuel is other than as supplied (see 3.8.1).
k. If responsibility for inspection is other than as specified (see 4.1).
l. If one of the first ten processed tank chassis will be subject to the first article inspection (see 4.3).
m. If sampling is other than as specified (see 4.4.3).

6.3 Safety precautions. Caution shall be exercised in handling carbon dioxide ($CO_2$) fire extinguisher cylinders. Cylinders should not be dropped, be permitted to strike each other, or be handled roughly. Extreme care should be exercised during the reinstallation operation to avoid tripping fire extinguisher control system (see 3.4.5.10).

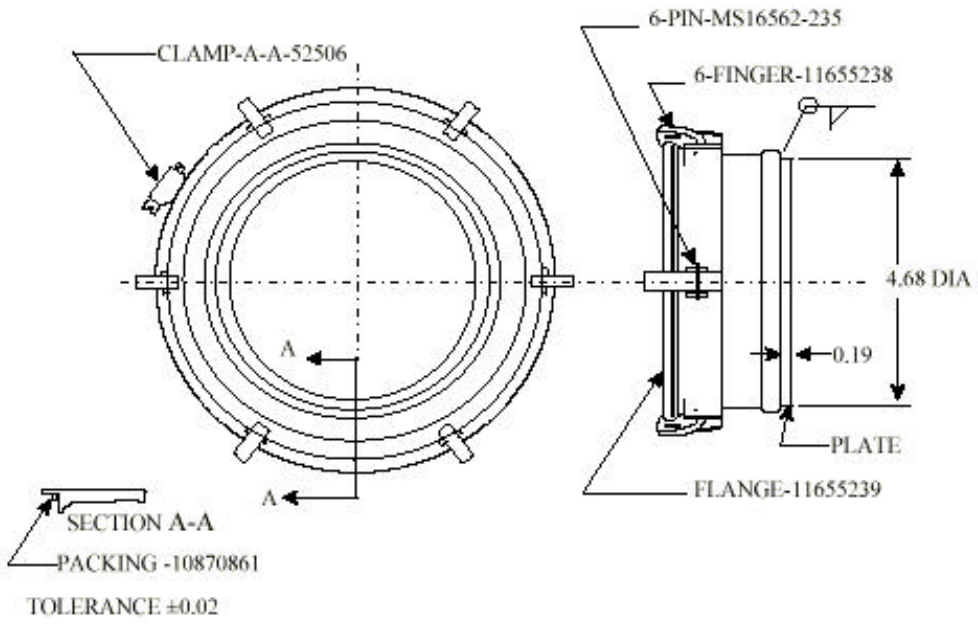
6.4 Forms. A copy of the "Equipment Log Book" and all required forms (see 3.4.3) will be furnished to the contractor by the Government at least 30 days before shipment of the vehicles required by the contract delivery schedule.

6.5 Supplemental publications. MIL-HDBK-129 provides general information on military marking and should be used as reference material. Copies of MIL-HDBK-129 are available from Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.

6.5 Subject term (key word) listing.

Cadmium plate
Packaging
Packing
Preservation process
Protection, military equipment
Vehicle preservation

6.6 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.




REQUIREMENTS

MATERIALS:

- Flange, fingers, pins, clamp, and packing: Requirements as specified on applicable Army and military standard drawings.
- Plate: Aluminum plate 60601, 5083 or 5456, specification QQ-A-250.

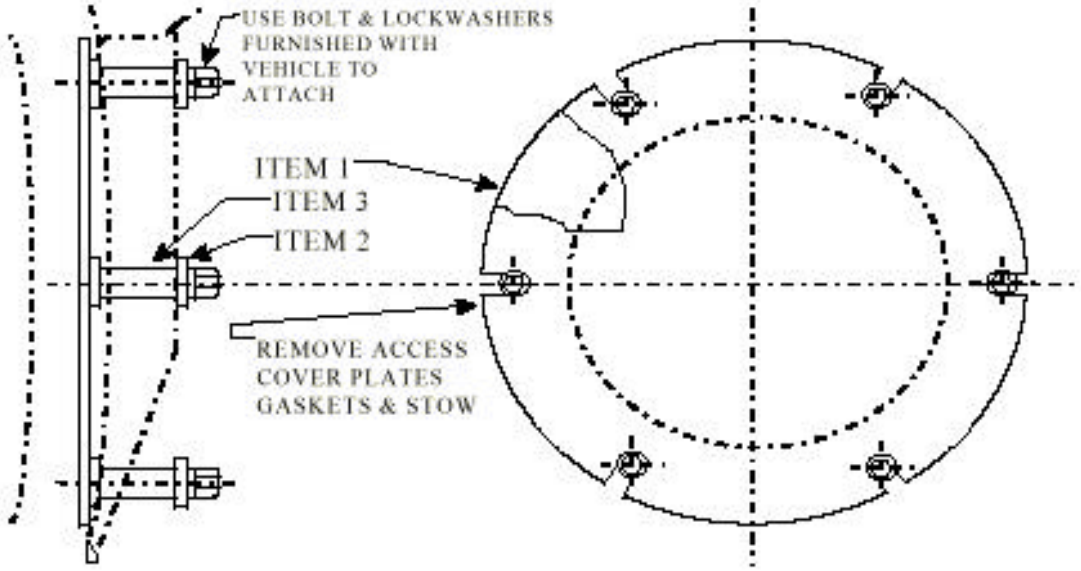
WELDING:

- Weld plate to flange using good commercial practice. Use an aluminum filler conforming to AWS A5.10. Air-tight joints required.

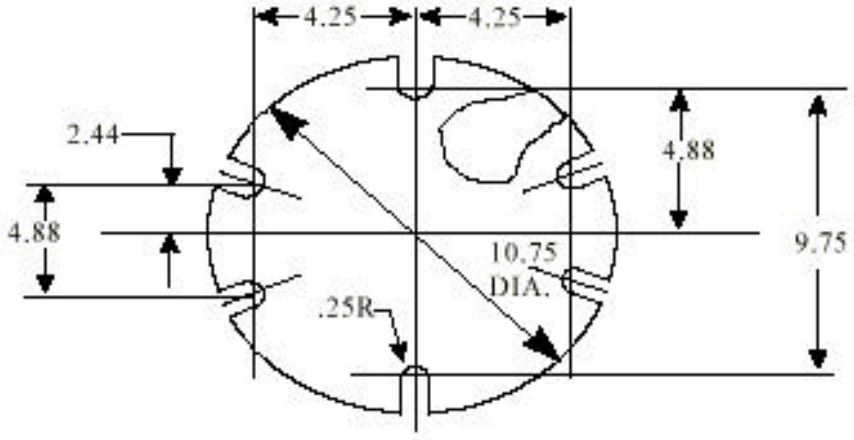
BONDING:

- Bond packing to flange with adhesive MMM-A-1617, type II. Cured bond to withstand 5-lb pull per inch of width perpendicular to bonded surface.

FIGURE 1. Turbocharger air inlet restrictor cover.

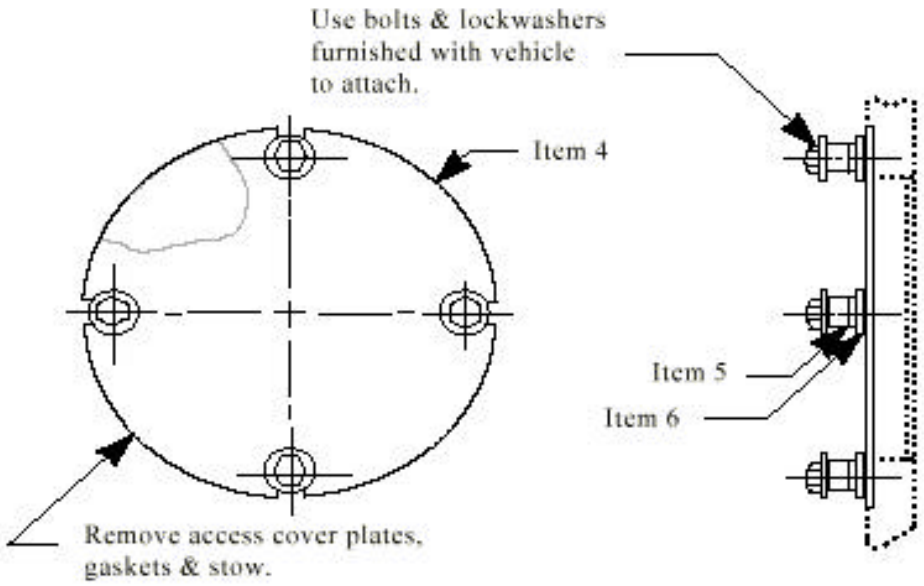



INSTALLATION BRAKE DISCONNECT ACCESS OPENING-2 PLACES

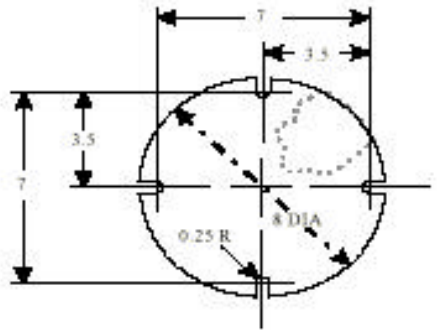



NOTE: All dimensions are in inches, fractional dimensions were converted to 2 place decimal dimensions.

FIGURE 2. Installation screens in brake access opening.




INSTALLATION-FUELTANK DRAIN ACCESS OPENING
TWO PLACES




ITEM NO. 4

| Item no. | Figure no. | No. required | Name | Material | Stock size |
|---|---|---|---|---|---|
| 4 | B3 | 2 | Screen | Steel | Galvanized wire 0.047 dia., 4x4 mesh |
| 5 | - | 8 | Spacer | Steel tubing | 0.69 O.D. x 0.065 wall x 0.56 lg. |
| 6 | - | 16 | Washer | Steel | 0.50 I.D. plain |

FIGURE 3. Installation screens in fuel tank access opening.

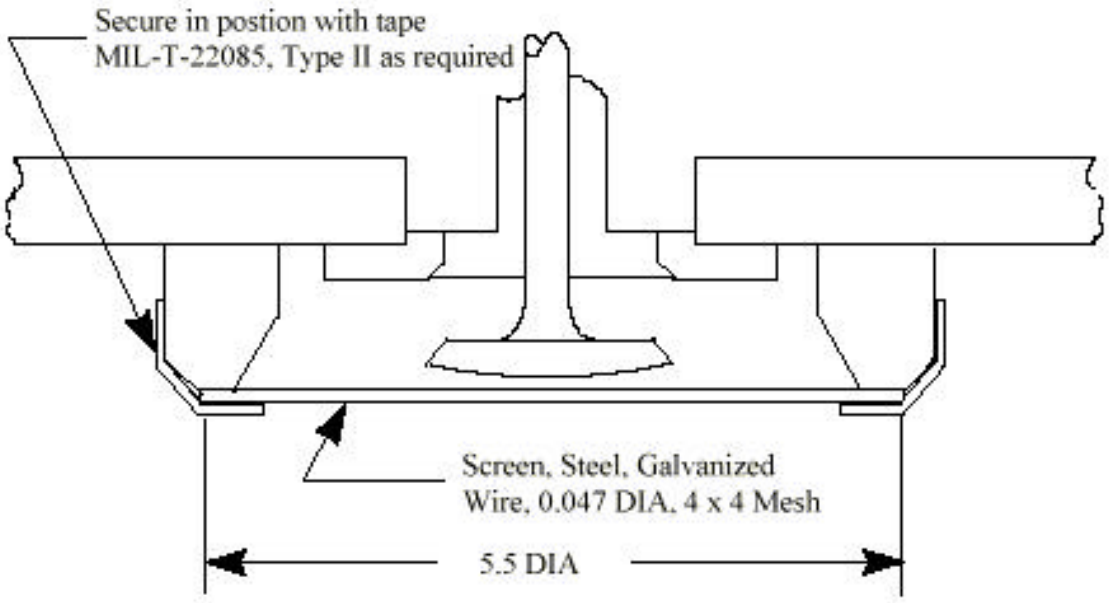



FIGURE 4. Installation, driver compartment drain valve screen.

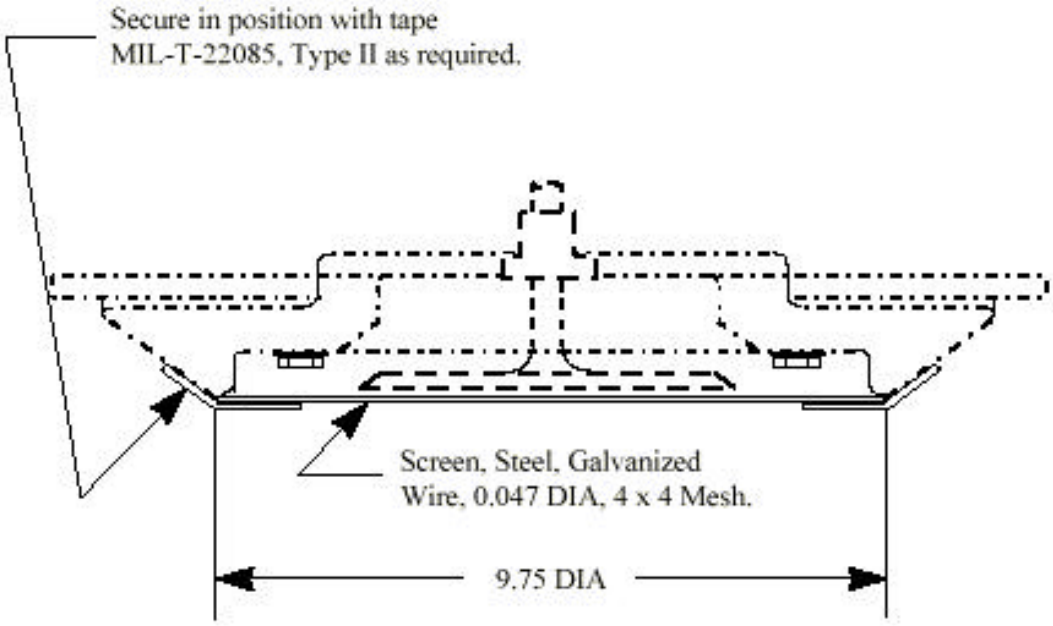
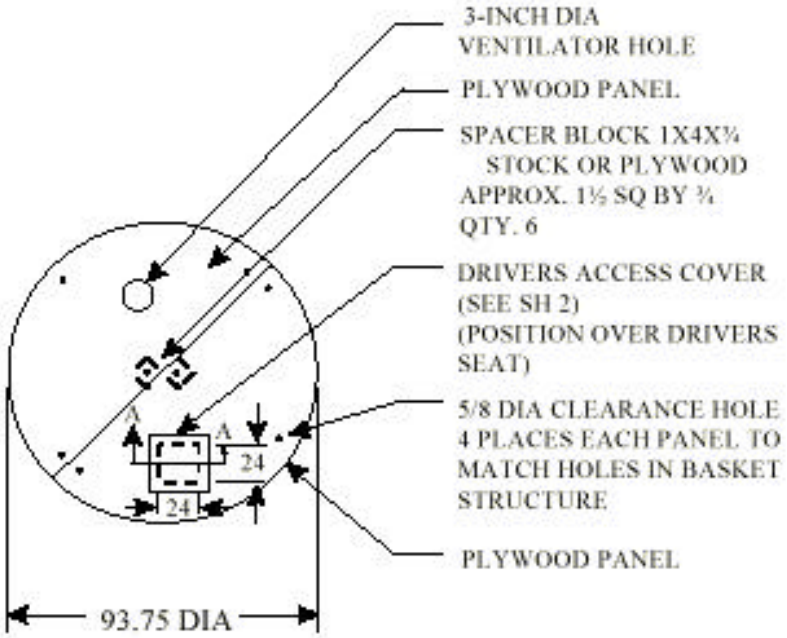



FIGURE 5. Installation engine compartment drain valve screen.




MATERIAL:
PLYWOOD, SPEC A-A-55057
TYPE I, GROUP A
¼ THICK MINIMUM

NOTE:
SECURE PLYWOOD PANELS TO
BASKET STRUCTURE WITH
SCREW MS90726-114
WASHER MS27183-18
QTY. 8 EACH

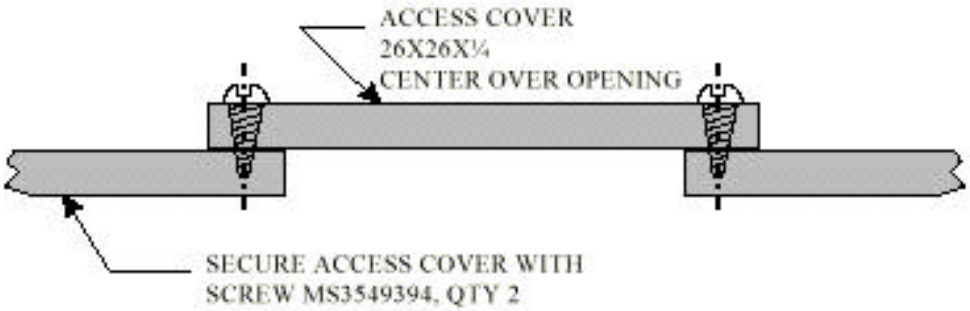



FIGURE 6. Crew compartment cover.

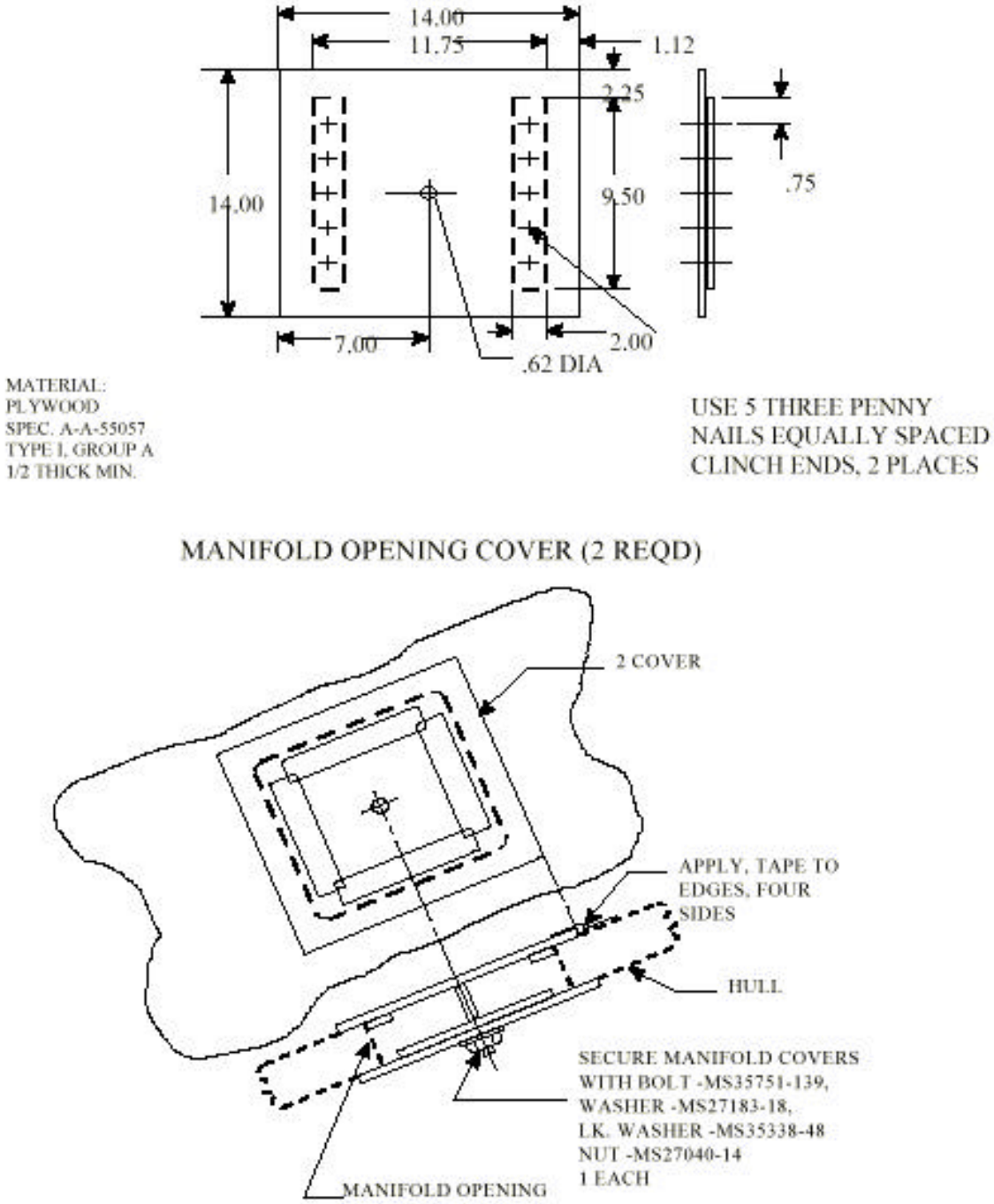



FIGURE 7. Manifold cover installation.

Custodian:
Army - AT

Preparing Activity:
Army - AT

(Project 2350-0499)

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

| I RECOMMEND A CHANGE: | 1. DOCUMENT NUMBER | 2. DOCUMENT DATE *(YYMMDD)* |
|---|---|---|
| | MIL-DTL-62279B(AT) | 970710 |

**3. DOCUMENT TITLE** CHASSIS, TANK: ARMORED VEHICLE, BRIDGE LAUNCHER, M60AT AND M48A5; PROCESSING FOR STORAGE AND SHIPMENT OF

**4. NATURE OF CHANGE** *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)*

**5. REASON FOR RECOMMENDATION**

**6. SUBMITTER**

| a. NAME *(Last, First, Middle Initial)* | b. ORGANIZATION | |
|---|---|---|
| c. ADDRESS *(Include Zip Code)* | d. TELEPHONE *(Include Area Code)*<br>(1) Commercial<br>(2) AUTOVON<br>*(If applicable)* | 7. DATE SUBMITTED *(YYMMDD)* |

**8. PREPARING ACTIVITY**

| a. NAME | b. TELEPHONE *(Include Area Code)*<br>(1) Commercial (810) 574-8745 (2) AUTOVON 786-8745 |
|---|---|
| c. ADDRESS *(Include Zip Code)*<br>Commander<br>U.S. Army Tank-automotive and Armaments Command<br>ATTN: AMSTA-TR-E/BLUE<br>Warren, MI 48397-5000 | IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:<br>Defense Quality and Standardization Office<br>5203 Leesburg Pike, Suite 1403<br>Falls Church, VA 22041-3466<br>Telephone (703) 756-2340 AUTOVON 289-2340 |